Title (en)

SIGNAL PIPELINING IN SYNCHRONOUS VECTOR PROCESSOR

Publication

EP 0422963 A3 19930630 (EN)

Application

EP 90311266 A 19901015

Priority

- US 42147189 A 19891013
- US 42148789 A 19891016
- US 42149489 A 19891013

Abstract (en)

[origin: EP0422963A2] A synchronous vector processor SVP device (102) having a plurality of one-bit processor elements (150) organized in a linear array. The processor elements are all controlled in common by a sequencer, a state machine or a control circuit (controller) (128) to enable operation as a parallel processing device. Each processor element (150) includes a set of input registers (154), two sets of register files (158,166), a set of working registers (162), an arithmetic logic unit (164) including a one-bit full adder/subtractor, and a set of output registers (168). In video applications each processor element (150) operates on one pixel of a horizontal scan line and is capable of real-time digital processing of video signals. Included within the SVP device is input circuitry enabling pipelining of address, data and control signals. The circuitry includes a plurality of latches (1452) and signal coding and decoding circuitry (1440,1448).

IPC 1-7

G06F 15/80

IPC 8 full level

G06F 9/28 (2006.01); **G06F 9/38** (2006.01); **G06F 15/16** (2006.01); **G06F 15/80** (2006.01); **G09G 5/00** (2006.01); **H04N 5/775** (2006.01); F02B 75/02 (2006.01); H04N 5/14 (2006.01); H04N 9/64 (2006.01); H04N 9/79 (2006.01)

CPC (source: EP KR US)

G06F 15/80 (2013.01 - KR); **G06F 15/8092** (2013.01 - EP US); **H04N 5/775** (2013.01 - EP); F02B 2075/027 (2013.01 - EP); H04N 5/14 (2013.01 - EP); H04N 9/641 (2013.01 - EP); H04N 9/79 (2013.01 - EP)

Citation (search report)

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Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

EP 0422963 A2 19910417; **EP 0422963 A3 19930630**; **EP 0422963 B1 19970514**; DE 69030704 D1 19970619; DE 69030704 T2 19971211; JP H0438525 A 19920207; KR 100199073 B1 19990615; KR 910009095 A 19910531

DOCDB simple family (application)

EP 90311266 A 19901015; DE 69030704 T 19901015; JP 27612890 A 19901015; KR 900016355 A 19901013